Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) An apparatus for computing a preferred set of prices for a plurality of products, comprising an optimization engine comprising computer readable media, comprising:

computer readable code for storing a plurality of rules;

computer readable code for ~~allowing the prioritization of~~ <u>prioritizing</u> the plurality of rules;

computer readable code for incrementally relaxing at least one lower priority rule to ~~allow~~ <u>enable</u> a higher priority <u>infeasible</u> rule to become feasible; and

computer readable code for performing an optimization process<u>, utilizing Bayesian shrinkage modeling,</u> to generate the preferred set of prices wherein the preferred set of prices meets the plurality of rules wherein a rule is feasible if said optimization process can be performed without violating said rule, further wherein the preferred set of prices is a set of product prices generated for said plurality of products.

2.   (Currently Amended) The apparatus, as recited in claim 1, further comprising:

an econometric engine for modeling sales as a function of price to create a sales model wherein said econometric engine clusters said plurality of products into demand groups of related products whereby each said demand group is made up of highly substitutable related products, further wherein said sales model models demand group sales; and

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a financial model engine for modeling costs to create an activity based cost model, <u>wherein said cost model includes fixed costs and variable costs, and</u> wherein the optimization engine is coupled to the econometric engine and financial model engine to receive input from the econometric engine and financial model engine and, wherein the optimization engine generates the preferred set of prices.

3.   (Currently Amended) The apparatus, as recited in claim 2, further comprising a support tool ~~for allowing~~ <u>configured to enable</u> a user to [[set a]] <u>edit the</u> plurality of rules and ~~for prioritizing~~ <u>prioritize</u> the plurality of rules.

4.   (Currently Amended) The apparatus, as recited in claim 3, wherein the computer readable code for relaxing at least one lower priority rule, comprises:

computer readable code for determining a priority of a rule determined to be infeasible;

computer readable code for determining a lowest priority infeasible rule;

computer readable code for determining if at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule may be relaxed to ~~allow~~ <u>enable</u> the rule determined to be the lowest priority infeasible rule to become feasible; and

computer readable code for incrementally relaxing at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to ~~allow~~ <u>enable</u> the rule determined to be the lowest priority infeasible rule to become feasible, wherein incrementally relaxing said at least one rule comprises:

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prioritizing each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule; and

sequentially relaxing in order of priority from lowest priority to highest priority each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to a point that allows said lowest priority infeasible rule to become feasible, wherein each said rule is relaxed incrementally in sequence until said point is reached.

5.   (Currently Amended) The apparatus, as recited in claim 4, wherein at least one of the plurality of rules is a gross margin rule, which defines a constraint on ~~the change of~~ gross margin <u>changes</u>.

6.   (Original)   The apparatus, as recited in claim 5, wherein the constraint on change of the gross margin is placed on each product of a group of products.

7.   (Original)   The apparatus, as recited in claim 5, wherein the constraint on change of the gross margin is placed on an average gross margin of a group of products.

8.   (Currently Amended) The apparatus, as recited in claim 4, wherein at least one of the plurality of rules is a store level volume rule, which defines a constraint on ~~the change of~~ volume of sales <u>changes</u> at a store level.

9.   (Currently Amended) The apparatus, as recited in claim 4, wherein at least one of the plurality of rules is a competition rule, which provides a constraint on [[the]] difference between at least one competitor's prices and the preferred set of prices.

10.   (Currently Amended) The apparatus, as recited in claim 1, wherein the computer readable code for relaxing at least one lower priority rule, comprises:

        computer readable code for determining a priority of a rule determined to be infeasible;

        computer readable code for determining a lowest priority infeasible rule;

        computer readable code for determining if at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule may be relaxed to allow the rule determined to be the lowest priority infeasible rule to become feasible; and

        computer readable code for incrementally relaxing at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to ~~allow~~ enable the rule determined to be the lowest priority infeasible rule to become feasible, wherein incrementally relaxing said at least one rule comprises:

                prioritizing each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule; and

                sequentially relaxing in order of priority from lowest priority to highest priority each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to a point that ~~allows~~ enables said lowest priority infeasible rule to become feasible, wherein each said rule is relaxed incrementally in sequence until said point is reached.

11.   (Currently Amended) A method for computing a preferred set of prices for a plurality of products, comprising generating a preferred set of prices, comprising:

storing a plurality of rules;

prioritizing ~~allowing the prioritization of~~ the plurality of rules;

incrementally relaxing at least one lower priority rule to ~~allow~~ <u>enable</u> higher priority <u>infeasible</u> rules to become feasible; and

performing an optimization process<u>, utilizing Bayesian shrinkage modeling,</u> to generate the preferred set of prices wherein the preferred set of prices meets the plurality of rules wherein a rule is feasible if said optimization process can be performed without violating said rule, further wherein the preferred set of prices is a set of product prices generated for said plurality of products.

12.   (Currently Amended) The method, as recited in claim 11, further comprising:

creating a sales model;

clustering said plurality of products into demand groups of related products whereby each said demand group is made up of highly substitutable related products, further wherein said sales model models demand group sales; and

creating an activity based cost model, wherein the generating a preferred set of prices uses information from the creation of the sales model and the creation of the cost model<u>, and wherein said cost model includes fixed costs and variable costs.</u>

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13.   (Currently Amended) The method, as recited in claim 12, wherein the relaxing at least one lower priority rule, comprises:

determining a priority of a rule determined to be infeasible;

determining a lowest priority infeasible rule;

determining if at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule may be relaxed to ~~allow~~ <u>enable</u> the rule determined to be the lowest priority infeasible rule to become feasible; and

incrementally relaxing at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to ~~allow~~ <u>enable</u> the rule determined to be the lowest priority infeasible rule to become feasible, wherein incrementally relaxing said at least one rule comprises:

prioritizing each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule; and

sequentially relaxing in order of priority from lowest priority to highest priority each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to a point that ~~allows~~ <u>enables</u> said lowest priority infeasible rule to become feasible, wherein each said rule is relaxed incrementally in sequence until said point is reached.

14.   (Currently Amended) The method, as recited in claim 13, wherein at least one of the plurality of rules is a gross margin rule, which defines a constraint on ~~the change of~~ gross margin <u>changes</u>.

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15.   (Original)   The method, as recited in claim 14, wherein the constraint on change of the gross margin is placed on each product of a group of products.

16.   (Original)   The method, as recited in claim 14, wherein the constraint on change of the gross margin is placed on an average gross margin of a group of products.

17.   (Currently Amended) The method, as recited in claim 13, wherein at least one of the plurality of rules is a store level volume rule, which defines a constraint on ~~the change~~ changes of volume of sales at a store level.

18.   (Currently Amended) The method, as recited in claim 13, wherein at least one of the plurality of rules is a competition rule, which provides a constraint on [[the]] difference between at least one competitor's prices and the preferred set of prices.

19.   (Currently Amended) The method, as recited in claim 11, wherein the relaxing at least one lower priority rule, comprises:

determining a priority of a rule determined to be infeasible;

determining a lowest priority infeasible rule;

determining if at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule may be relaxed to ~~allow~~ enable the rule determined to be the lowest priority infeasible rule to become feasible; and

incrementally relaxing at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to ~~allow~~ enable the rule determined to be the lowest priority infeasible rule to become feasible, wherein incrementally relaxing said at least one rule comprises:

prioritizing each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule; and

sequentially relaxing in order of priority from lowest priority to highest priority each said at least one rule with a lower priority than the priority of the rule determined to be the lowest priority infeasible rule to a point that ~~allows~~ enables said lowest priority infeasible rule to become feasible, wherein each said rule is relaxed incrementally in sequence until said point is reached.

20.   (Canceled)